



SEQUENCE LISTING

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Stratowa, Christian

<120> TNF Receptors, TNF Binding Proteins and DNAs Coding for  
Them

<130> 98-385-I

<140> 09/898,234

<141> 2001-07-03

<150> 09/525,998

<151> 2000-03-15

<150> 08/383,676

<151> 1995-02-01

<150> 08/153,287

<151> 1993-11-17

<150> 07/821,750

<151> 1992-01-02

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<170> PatentIn Ver. 2.0

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<222> (1)..(1365)

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<221> sig\_peptide

<222> (1)..(87)

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<221> misc\_feature

<222> (88)..(120)

<223> portion of TNF-BP pro protein cleaved by  
extracellular proteases following secretion

<220>

<221> misc\_feature

<222> (606)..(633)

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Py

## extracellular proteases following secretion

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 gag ctg ttg gtg gga ata tac ccc tca ggg gtt att gga ctg gtc cct  
 Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Leu Val Pro  
 20 25 30  
  
 cac cta ggg gac agg gag aag aga gat agt gtg tgt ccc caa gga aaa  
 His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys Pro Gln Gly Lys  
 35 40 45  
  
 tat atc cac cct caa aat aat tcg att tgc tgt acc aag tgc cac aaa  
 Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys  
 50 55 60  
  
 gga acc tac ttg tac aat gac tgt cca ggc ccg ggg cag gat acg gac  
 Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gln Asp Thr Asp  
 65 70 75 80  
  
 tgc agg gag tgt gag agc ggc tcc ttc acc gct tca gaa aac cac ctc  
 Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu  
 85 90 95  
  
 aga cac tgc ctc agc tgc tcc aaa tgc cga aag gaa atg ggt cag gtg  
 Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val  
 100 105 110  
  
 gag atc tct tct tgc aca gtg gac cgg gac acc gtg tgt ggc tgc agg  
 Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg  
 115 120 125  
  
 aag aac cag tac cgg cat tat tgg agt gaa aac ctt ttc cag tgc ttc  
 Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe  
 130 135 140  
  
 aat tgc agc ctc tgc ctc aat ggg acc gtg cac ctc tcc tgc cag gag  
 Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu  
 145 150 155 160  
  
 aaa cag aac acc gtg tgc acc tgc cat gca ggt ttc ttt cta aga gaa  
 Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu  
 165 170 175  
  
 aac gag tgt gtc tcc tgt agt aac tgt aag aaa agc ctg gag tgc acg  
 Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser Leu Glu Cys Thr  
 180 185 190  
  
 aag ttg tgc cta ccc cag att gag aat gtt aag ggc act gag gac tca  
 Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser  
 195 200 205  
  
 ggc acc aca gtg ctg ttg ccc ctg gtc att ttc ttt ggt ctt tgc ctt  
 Gly Thr Thr Val Leu Leu Pro Leu Val Ile Phe Phe Gly Leu Cys Leu  
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tta tcc ctc ctc ttc att ggt tta atg tat cgc tac caa cgg tgg aag			720
Leu Ser Leu Leu Phe Ile Gly Leu Met Tyr Arg Tyr Gln Arg Trp Lys			
225	230	235	240
tcc aag ctc tac tcc att gtt tgt ggg aaa tcg aca cct gaa aaa gag			768
Ser Lys Leu Tyr Ser Ile Val Cys Gly Lys Ser Thr Pro Glu Lys Glu			
245	250	255	
ggg gag ctt gaa gga act act aact aag ccc ctg gcc cca aac cca agc			816
Gly Glu Leu Glu Gly Thr Thr Lys Pro Leu Ala Pro Asn Pro Ser			
260	265	270	
ttc agt ccc act cca ggc ttc acc ccc acc ctg ggc ttc agt ccc gtg			864
Phe Ser Pro Thr Pro Gly Phe Thr Pro Thr Leu Gly Phe Ser Pro Val			
275	280	285	
ccc agt tcc acc ttc acc tcc agc tcc acc tat acc ccc ggt gac tgt			912
Pro Ser Ser Thr Phe Thr Ser Ser Thr Tyr Thr Pro Gly Asp Cys			
290	295	300	
ccc aac ttt gcg gct ccc cgc aga gag gtg gca cca ccc tat cag ggg			960
Pro Asn Phe Ala Ala Pro Arg Arg Glu Val Ala Pro Pro Tyr Gln Gly			
305	310	315	320
gct gac ccc atc ctt gcg aca gcc ctc gac ccc atc ccc aac			1008
Ala Asp Pro Ile Leu Ala Thr Ala Leu Ala Ser Asp Pro Ile Pro Asn			
325	330	335	
ccc ctt cag aag tgg gag gac agc gcc cac aag cca cag agc cta gac			1056
Pro Leu Gln Lys Trp Glu Asp Ser Ala His Lys Pro Gln Ser Leu Asp			
340	345	350	
act gat gac ccc gcg acg ctg tac gcc gtg gtg gag aac gtg ccc ccg			1104
Thr Asp Asp Pro Ala Thr Leu Tyr Ala Val Val Glu Asn Val Pro Pro			
355	360	365	
ttg cgc tgg aag gaa ttc gtg cgg cgc cta ggg ctg agc gac cac gag			1152
Leu Arg Trp Lys Glu Phe Val Arg Arg Leu Gly Leu Ser Asp His Glu			
370	375	380	
atc gat cgg ctg gag ctg cag aac ggg cgc tgc ctg cgc gag ggc caa			1200
Ile Asp Arg Leu Glu Leu Gln Asn Gly Arg Cys Leu Arg Glu Ala Gln			
385	390	395	400
tac agc atg ctg gcg acc tgg agg cgg cgc acg ccg cgg cgc gag gcc			1248
Tyr Ser Met Leu Ala Thr Trp Arg Arg Thr Pro Arg Arg Glu Ala			
405	410	415	
acg ctg gag ctg ctg gga cgc gtg ctc cgc gac atg gac ctg ctg ggc			1296
Thr Leu Glu Leu Leu Gly Arg Val Leu Arg Asp Met Asp Leu Leu Gly			
420	425	430	
tgc ctg gag gac atc gag gag gcg ctt tgc ggc ccc gcc gcc ctc ccg			1344
Cys Leu Glu Asp Ile Glu Glu Ala Leu Cys Gly Pro Ala Ala Leu Pro			
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Pro Ala Pro Ser Leu Leu Arg  
450 455

1368

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<212> PRT  
<213> Homo sapiens

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20 25 30

His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys Pro Gln Gly Lys  
35 40 45

Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys  
50 55 60

Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gln Asp Thr Asp  
65 70 75 80

Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu  
85 90 95

Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val  
100 105 110

Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg  
115 120 125

Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe  
130 135 140

Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu  
145 150 155 160

Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu  
165 170 175

Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser Leu Glu Cys Thr  
180 185 190

Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser  
195 200 205

Gly Thr Thr Val Leu Leu Pro Leu Val Ile Phe Phe Gly Leu Cys Leu  
210 215 220

Leu Ser Leu Leu Phe Ile Gly Leu Met Tyr Arg Tyr Gln Arg Trp Lys  
225 230 235 240

Ser Lys Leu Tyr Ser Ile Val Cys Gly Lys Ser Thr Pro Glu Lys Glu  
245 250 255

Gly Glu Leu Glu Gly Thr Thr Lys Pro Leu Ala Pro Asn Pro Ser  
260 265 270

Phe Ser Pro Thr Pro Gly Phe Thr Pro Thr Leu Gly Phe Ser Pro Val  
275 280 285

Pro Ser Ser Thr Phe Thr Ser Ser Ser Thr Tyr Thr Pro Gly Asp Cys  
290 295 300

Pro Asn Phe Ala Ala Pro Arg Arg Glu Val Ala Pro Pro Tyr Gln Gly  
305 310 315 320

Ala Asp Pro Ile Leu Ala Thr Ala Leu Ala Ser Asp Pro Ile Pro Asn  
325 330 335

Pro Leu Gln Lys Trp Glu Asp Ser Ala His Lys Pro Gln Ser Leu Asp  
340 345 350

Thr Asp Asp Pro Ala Thr Leu Tyr Ala Val Val Glu Asn Val Pro Pro  
355 360 365

Leu Arg Trp Lys Glu Phe Val Arg Arg Leu Gly Leu Ser Asp His Glu  
370 375 380

Ile Asp Arg Leu Glu Leu Gln Asn Gly Arg Cys Leu Arg Glu Ala Gln  
385 390 395 400

Tyr Ser Met Leu Ala Thr Trp Arg Arg Arg Thr Pro Arg Arg Glu Ala  
405 410 415

Thr Leu Glu Leu Leu Gly Arg Val Leu Arg Asp Met Asp Leu Leu Gly  
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Pro Ala Pro Ser Leu Leu Arg  
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<220>  
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att tgc tgt acc aag tgc cac aaa gga acc tac ttg tac aat gac tgt	96
Ile Cys Cys Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys	
20 25 30	
cca ggc ccg ggg cag gat acg gac tgc agg gag tgt gag agc ggc tcc	144
Pro Gly Pro Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser	
35 40 45	
ttc acc gct tca gaa aac cac ctc aga cac tgc ctc agc tgc tcc aaa	192
Phe Thr Ala Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser Lys	
50 55 60	
tgc cga aag gaa atg ggt cag gtg gag atc tct tct tgc aca gtg gac	240
Cys Arg Lys Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp	
65 70 75 80	
cgg gac acc gtg tgt ggc tgc agg aag aac cag tac cgg cat tat tgg	288
Arg Asp Thr Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr Trp	
85 90 95	
agt gaa aac ctt ttc cag tgc ttc aat tgc agc ctc tgc ctc aat ggg	336
Ser Glu Asn Leu Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn Gly	
100 105 110	
acc gtg cac ctc tcc tgc cag gag aaa cag aac acc gtg tgc acc tgc	384
Thr Val His Leu Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr Cys	
115 120 125	
cat gca ggt ttc ttt cta aga gaa aac gag tgt gtc tcc tgt agt aac	432
His Ala Gly Phe Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser Asn	
130 135 140	
tgt aag aaa agc ctg gag tgc acg aag ttg tgc cta ccc cag att gag	480
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Asn	

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Pro Gly Pro Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser	
35 40 45	
Phe Thr Ala Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser Lys	
50 55 60	

Cys Arg Lys Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp  
65 70 75 80

Arg Asp Thr Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr Trp  
85 90 95

Ser Glu Asn Leu Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn Gly  
100 105 110

Thr Val His Leu Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr Cys  
115 120 125

His Ala Gly Phe Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser Asn  
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Cys Lys Lys Ser Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile Glu  
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Asn

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TNF-BP sequence

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<222> (1)..(486)

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tcg att tgc tgt acc aag tgc cac aaa gga acc tac ttg tac aat gac 96  
Ser Ile Cys Cys Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp  
20 25 30

tgt cca ggc ccg ggg cag gat acg gac tgc agg gag tgt gag agc ggc 144  
Cys Pro Gly Pro Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly  
35 40 45

tcc ttc acc gct tca gaa aac cac ctc aga cac tgc ctc agc tgc tcc 192  
Ser Phe Thr Ala Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser  
50 55 60

aaa tgc cga aag gaa atg ggt cag gtg gag atc tct tct tgc aca gtg 240  
Lys Cys Arg Lys Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val  
65 70 75 80

gac	cg	gac	acc	gt	tg	gg	tc	ag	a	ac	ca	ta	cg	ca	ta	288
Asp	Arg	Asp	Thr	Val	Cys	Gly	Cys	Arg	Lys	Asn	Gln	Tyr	Arg	His	Tyr	
85														95		
tgg	ag	gaa	aac	ctt	ttc	cag	tg	tc	aat	tg	ag	ct	tc	tc	aat	336
Trp	Ser	Glu	Asn	Leu	Phe	Gln	Cys	Phe	Asn	Cys	Ser	Leu	Cys	Leu	Asn	
100														110		
ggg	ac	gt	ca	ct	tc	tg	ca	ga	aa	ca	ac	gt	tg	ac	384	
Gly	Thr	Val	His	Leu	Ser	Cys	Gln	Glu	Lys	Gln	Asn	Thr	Val	Cys	Thr	
115														125		
tgc	ca	g	tt	tt	ct	ag	ga	aa	ac	ga	tg	tg	cc	tg	432	
Cys	His	Ala	Gly	Phe	Phe	Leu	Arg	Glu	Asn	Glu	Cys	Val	Ser	Cys	Ser	
130														140		
aac	tgt	aag	aaa	agc	ctg	gag	tg	ac	aag	tt	tg	tg	cc	ca	480	
Asn	Cys	Lys	Lys	Ser	Leu	Glu	Cys	Thr	Lys	Leu	Cys	Leu	Pro	Gln	Ile	
145														155	160	
gag	aa														486	
Glu	Asn															

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<223> Description of Artificial Sequence: recombinant  
TNF-BP sequence

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Ser Ile Cys Cys Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp  
20 25 30

Cys Pro Gly Pro Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly  
35 40 45

Ser Phe Thr Ala Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser  
50 55 60

Lys Cys Arg Lys Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val  
65 70 75 80

Asp Arg Asp Thr Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr  
85 90 95

Trp Ser Glu Asn Leu Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn  
100 105 110

Gly Thr Val His Leu Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr  
115 120 125

Cys His Ala Gly Phe Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser  
130 135 140

Asn Cys Lys Lys Ser Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile  
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Glu Asn

<210> 7  
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<212> DNA  
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<220>  
<223> Description of Artificial Sequence: recombinant  
TNF-BP sequence

<220>  
<221> CDS  
<222> (1)...(633)

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1 5 10 15

gag ctg ttg gtg gga ata tac ccc tca ggg gtt att gga ctg gtc cct 96  
Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Leu Val Pro  
20 25 30

cac cta ggg gac agg gag aag aga gat agt gtg tgt ccc caa gga aaa 144  
His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys Pro Gln Gly Lys  
35 40 45

tat atc cac cct caa aat aat tcg att tgc tgt acc aag tgc cac aaa 192  
Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys  
50 55 60

gga acc tac ttg tac aat gac tgt cca ggc ccg ggg cag gat acg gac 240  
Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gln Asp Thr Asp  
65 70 75 80

tgc agg gag tgt gag agc ggc tcc ttc acc gct tca gaa aac cac ctc 288  
Cys Arg Glu Cys Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu  
85 90 95

aga cac tgc ctc agc tgc tcc aaa tgc cga aag gaa atg ggt cag gtg 336  
Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val  
100 105 110

gag atc tct tct tgc aca gtg gac cgg gac acc gtg tgt ggc tgc agg 384  
Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg  
115 120 125

aag aac cag tac cgg cat tat tgg agt gaa aac ctt ttc cag tgc ttc	432																																								
Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe																																									
130	135	140		aat tgc agc ctc tgc ctc aat ggg acc gtg cac ctc tcc tgc cag gag	480	Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu		145	150	155	160	aaa cag aac acc gtg tgc acc tgc cat gca ggt ttc ttt cta aga gaa	528	Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu		165	170	175		aac gag tgt gtc tcc tgt agt aac tgt aag aaa agc ctg gag tgc acg	576	Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Ser Leu Glu Cys Thr		180	185	190		aag ttg tgc cta ccc cag att gag aat gtt aag ggc act gag gac tca	624	Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser		195	200	205		ggc acc aca	633	Gly Thr Thr		210	
140																																									
aat tgc agc ctc tgc ctc aat ggg acc gtg cac ctc tcc tgc cag gag	480																																								
Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu																																									
145	150	155	160	aaa cag aac acc gtg tgc acc tgc cat gca ggt ttc ttt cta aga gaa	528	Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu		165	170	175		aac gag tgt gtc tcc tgt agt aac tgt aag aaa agc ctg gag tgc acg	576	Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Ser Leu Glu Cys Thr		180	185	190		aag ttg tgc cta ccc cag att gag aat gtt aag ggc act gag gac tca	624	Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser		195	200	205		ggc acc aca	633	Gly Thr Thr		210									
155	160																																								
aaa cag aac acc gtg tgc acc tgc cat gca ggt ttc ttt cta aga gaa	528																																								
Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu																																									
165	170	175		aac gag tgt gtc tcc tgt agt aac tgt aag aaa agc ctg gag tgc acg	576	Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Ser Leu Glu Cys Thr		180	185	190		aag ttg tgc cta ccc cag att gag aat gtt aag ggc act gag gac tca	624	Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser		195	200	205		ggc acc aca	633	Gly Thr Thr		210																	
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Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Ser Leu Glu Cys Thr																																									
180	185	190		aag ttg tgc cta ccc cag att gag aat gtt aag ggc act gag gac tca	624	Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser		195	200	205		ggc acc aca	633	Gly Thr Thr		210																									
190																																									
aag ttg tgc cta ccc cag att gag aat gtt aag ggc act gag gac tca	624																																								
Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser																																									
195	200	205		ggc acc aca	633	Gly Thr Thr		210																																	
205																																									
ggc acc aca	633																																								
Gly Thr Thr																																									
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<210> 8  
<211> 211  
<212> PRT  
<213> Artificial Sequence

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<223> Description of Artificial Sequence: recombinant  
TNF-BP sequence

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Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Leu Val Pro  
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His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys Pro Gln Gly Lys  
35 40 45

Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys  
50 55 60

Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp  
65 70 75 80

Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu  
85 90 95

Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val  
100 105 110

Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg

115	120	125																
Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe																		
130	135	140																
Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu																		
145	150	155																
160																		
Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu																		
165	170	175																
Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser Leu Glu Cys Thr																		
180	185	190																
Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser																		
195	200	205																
Gly Thr Thr																		
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TNF-BP sequence																		
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1		5							10					15				
ccc caa gga aaa tat atc cac cct caa aat aat tcg att tgc tgt acc																	96	
Pro	Gln	Gly	Lys	Tyr	Ile	His	Pro	Gln	Asn	Asn	Ser	Ile	Cys	Cys	Thr			
20									25					30				
aag tgc cac aaa gga acc tac ttg tac aat gac tgt cca ggc ccg ggg																	144	
Lys	Cys	His	Lys	Gly	Thr	Tyr	Leu	Tyr	Asn	Asp	Cys	Pro	Gly	Pro	Gly			
35									40					45				
cag gat acg gac tgc agg gag tgt gag agc ggc tcc ttc acc gct tca																	192	
Gln	Asp	Thr	Asp	Cys	Arg	Glu	Cys	Glu	Ser	Gly	Ser	Phe	Thr	Ala	Ser			
50									55					60				
gaa aac cac ctc aga cac tgc ctc agc tgc tcc aaa tgc cga aag gaa																	240	
Glu	Asn	His	Leu	Arg	His	Cys	Leu	Ser	Cys	Ser	Lys	Cys	Arg	Lys	Glu			
65									70					75			80	
atg ggt cag gtg gag atc tct tct tgc aca gtg gac cgg gac acc gtg																	288	
Met	Gly	Gln	Val	Glu	Ile	Ser	Ser	Cys	Thr	Val	Asp	Arg	Asp	Thr	Val			

85	90	95	
tgt ggc tgc agg aag aac cag tac cg	cat tat tgg agt gaa aac ctt		336
Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu			
100	105	110	
ttc cag tgc ttc aat tgc agc ctc tgc ctc aat ggg acc gtg cac ctc			384
Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu			
115	120	125	
tcc tgc cag gag aaa cag aac acc gtg tgc acc tgc cat gca ggt ttc			432
Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe			
130	135	140	
ttt cta aga gaa aac gag tgt gtc tcc tgt agt aac tgt aag aaa agc			480
Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Ser			
145	150	155	160
ctg gag tgc acg aag ttg tgc cta ccc cag att gag aat gtt aag ggc			528
Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly			
165	170	175	
act gag gac tca ggc acc aca			549
Thr Glu Asp Ser Gly Thr Thr			
180			
<210> 10			
<211> 183			
<212> PRT			
<213> Artificial Sequence			
<220>			
<223> Description of Artificial Sequence: recombinant			
TNF-BP sequence			
<400> 10			
Met Leu Val Pro His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys			
1	5	10	15
Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr			
20	25	30	
Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly			
35	40	45	
Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser			
50	55	60	
Glu Asn His Leu Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu			
65	70	75	80
Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val			
85	90	95	
Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu			
100	105	110	

Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu  
115 120 125

Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe  
130 135 140

Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser  
145 150 155 160

Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly  
165 170 175

Thr Glu Asp Ser Gly Thr Thr  
180

<210> 11

<211> 600

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: recombinant  
TNF-BP sequence

<220>

<221> CDS

<222> (1)..(600)

<400> 11

atg ggc ctc tcc acc gtg cct gac ctg ctg ctg cca ctg gtg ctc ctg 48  
Met Gly Leu Ser Thr Val Pro Asp Leu Leu Pro Leu Val Leu Leu  
1 5 10 15

gag ctg ttg gtg gga ata tac ccc tca ggg gtt att gga gat agt gtg 96  
Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Asp Ser Val  
20 25 30

tgt ccc caa gga aaa tat atc cac cct caa aat aat tcg att tgc tgt 144  
Cys Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys  
35 40 45

acc aag tgc cac aaa gga acc tac ttg tac aat gac tgt cca ggc ccg 192  
Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro  
50 55 60

ggg cag gat acg gac tgc agg gag tgt gag agc ggc tcc ttc acc gct 240  
Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala  
65 70 75 80

tca gaa aac cac ctc aga cac tgc ctc agc tgc tcc aaa tgc cga aag 288  
Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys  
85 90 95

gaa atg ggt cag gtg gag atc tct tct tgc aca gtg gac cgg gac acc 336  
Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr

100	105	110	
gtg tgt ggc tgc agg aag aac cag tac cgg cat tat tgg agt gaa aac			384
Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn			
115	120	125	
ctt ttc cag tgc ttc aat tgc agc ctc tgc ctc aat ggg acc gtg cac			432
Leu Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His			
130	135	140	
ctc tcc tgc cag gag aaa cag aac acc gtg tgc acc tgc cat gca ggt			480
Leu Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly			
145	150	155	160
ttc ttt cta aga gaa aac gag tgt gtc tcc tgt agt aac tgt aag aaa			528
Phe Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys			
165	170	175	
agc ctg gag tgc acg aag ttg tgc cta ccc cag att gag aat gtt aag			576
Ser Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys			
180	185	190	
ggc act gag gac tca ggc acc aca			600
Gly Thr Glu Asp Ser Gly Thr Thr			
195	200		
<210> 12			
<211> 200			
<212> PRT			
<213> Artificial Sequence			
<220>			
<223> Description of Artificial Sequence: recombinant			
TNF-BP sequence			
<400> 12			
Met Gly Leu Ser Thr Val Pro Asp Leu Leu Leu Pro Leu Val Leu Leu			
1	5	10	15
Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Asp Ser Val			
20	25	30	
Cys Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys			
35	40	45	
Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro			
50	55	60	
Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala			
65	70	75	80
Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys			
85	90	95	
Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr			
100	105	110	

Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn  
115 120 125

Leu Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His  
130 135 140

Leu Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly  
145 150 155 160

Phe Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys  
165 170 175

Ser Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys  
180 185 190

Gly Thr Glu Asp Ser Gly Thr Thr  
195 200

<210> 13

<211> 603

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: recombinant  
/TNF-BP sequence

<220>

<221> CDS

<222> (1)..(603)

<400> 13

atg ggc ctc tcc acc gtg cct gac ctg ctg ctg cca ctg gtg ctc ctg 48  
Met Gly Leu Ser Thr Val Pro Asp Leu Leu Leu Pro Leu Val Leu Leu  
1 5 10 15

gag ctg ttg gtg gga ata tac ccc tca ggg gtt att gga ctg gtc cct 96  
Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Leu Val Pro  
20 25 30

cac cta ggg gac agg gag aag aga gat agt gtg tgt ccc caa gga aaa 144  
His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys Pro Gln Gly Lys  
35 40 45

tat atc cac cct caa aat aat tcg att tgc tgt acc aag tgc cac aaa 192  
Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys  
50 55 60

gga acc tac ttg tac aat gac tgt cca ggc ccg ggg cag gat acg gac 240  
Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp  
65 70 75 80

tgc agg gag tgt gag agc ggc tcc ttc acc gct tca gaa aac cac ctc 288  
Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu  
85 90 95

aga cac tgc ctc agc tgc tcc aaa tgc cga aag gaa atg ggt cag gtg	336		
Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val			
100	105	110	
gag atc tct tct tgc aca gtc gac cgg gac acc gtc tgc agg	384		
Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg			
115	120	125	
aag aac cag tac cgg cat tat tgg agt gaa aac ctt ttc cag tgc ttc	432		
Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe			
130	135	140	
aat tgc agc ctc tgc ctc aat ggg acc gtc cac ctc tcc tgc cag gag	480		
Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu			
145	150	155	160
aaa cag aac acc gtc acc tgc cat gca ggt ttc ttt cta aga gaa	528		
Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu			
165	170	175	
aac gag tgt gtc tcc tgt agt aac tgt aag aaa agc ctg gag tgc acg	576		
Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Ser Leu Glu Cys Thr			
180	185	190	
aag ttg tgc cta ccc cag att gag aat	603		
Lys Leu Cys Leu Pro Gln Ile Glu Asn			
195	200		

<210> 14

<211> 201

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: recombinant  
TNF-BP sequence

<400> 14

Met Gly Leu Ser Thr Val Pro Asp Leu Leu Leu Pro Leu Val Leu Leu			
1	5	10	15

Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Leu Val Pro		
20	25	30

His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys Pro Gln Gly Lys		
35	40	45

Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys		
50	55	60

Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp			
65	70	75	80

Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu		
85	90	95

Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val  
100 105 110

Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg  
115 120 125

Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe  
130 135 140

Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu  
145 150 155 160

Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu  
165 170 175

Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser Leu Glu Cys Thr  
180 185 190

Lys Leu Cys Leu Pro Gln Ile Glu Asn  
195 200

<210> 15

<211> 519

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: recombinant  
TNF-BP sequence

<220>

<221> CDS

<222> (1)..(519)

<400> 15

atg ctg gtc cct cac cta ggg gac agg aag aag gat agt gtg tgt 48  
Met Leu Val Pro His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys  
1 5 10 15

ccc caa gga aaa tat atc cac cct caa aat aat tcg att tgc tgt acc 96  
Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr  
20 25 30

aag tgc cac aaa gga acc tac ttg tac aat gac tgt cca ggc ccg ggg 144  
Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly  
35 40 45

cag gat acg gac tgc agg gag tgt gag agc ggc tcc ttc acc gct tca 192  
Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser  
50 55 60

gaa aac cac ctc aga cac tgc ctc agc tgc tcc aaa tgc cga aag gaa 240  
Glu Asn His Leu Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu  
65 70 75 80

atg ggt cag gtg gag atc tct tct tgc aca gtg gac cg	acc gtc	288
Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp Arg	Asp Thr Val	
85	90	95
tgt ggc tgc agg aag aac cag tac cg	cat tat tgg agt gaa aac ctt	336
Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr Trp Ser	Glu Asn Leu	
100	105	110
ttc cag tgc ttc aat tgc agc ctc tgc ctc aat ggg acc	gtg cac ctc	384
Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn Gly	Thr Val His Leu	
115	120	125
tcc tgc cag gag aaa cag aac acc gtg tgc acc tgc cat	gca ggt ttc	432
Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr Cys His	Ala Gly Phe	
130	135	140
ttt cta aga gaa aac gag tgt gtc tcc tgt agt aac tgc aat	aaa agc	480
Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser Asn Cys Lys	Ser	
145	150	155
160		
ctg gag tgc acg aag ttg tgc cta ccc cag att gag aat		519
Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile Glu Asn		
165	170	

<210> 16  
 <211> 173  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: recombinant  
 TNF-BP sequence

Met Leu Val Pro His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys			
1	5	10	15
Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr			
20	25	30	
Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly			
35	40	45	
Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser			
50	55	60	
Glu Asn His Leu Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu			
65	70	75	80
Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val			
85	90	95	
Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu			
100	105	110	
Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu			

115

120

125

Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe  
130 135 140

Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser  
145 150 155 160

Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile Glu Asn  
165 170

<210> 17

<211> 570

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: recombinant  
TNF-BP sequence

<220>

<221> CDS

<222> (1)..(570)

<400> 17

atg ggc ctc tcc acc gtc cct gac ctg ctg ctg cca ctg gtc ctc ctg 48  
Met Gly Leu Ser Thr Val Pro Asp Leu Leu Leu Pro Leu Val Leu Leu  
1 5 10 15

gag ctg ttg gtc gga ata tac ccc tca ggg gtt att gga gat agt gtc 96  
Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Asp Ser Val  
20 25 30

tgt ccc caa gga aaa tat atc cac cct caa aat aat tcg att tgc tgt 144  
Cys Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys  
35 40 45

acc aag tgc cac aaa gga acc tac ttg tac aat gac tgt cca ggc ccg 192  
Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro  
50 55 60

ggg cag gat acg gac tgc agg gag tgt gag agc ggc tcc ttc acc gct 240  
Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala  
65 70 75 80

tca gaa aac cac ctc aga cac tgc ctc agc tgc tcc aaa tgc cga aag 288  
Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys  
85 90 95

gaa atg ggt cag gtc gag atc tct tct tgc aca gtc gac cgg gac acc 336  
Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr  
100 105 110

gtg tgt ggc tgc agg aag aac cag tac cgg cat tat tgg agt gaa aac 384  
Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn  
115 120 125

ctt ttc cag tgc ttc aat tgc agc ctc tgc ctc aat ggg acc gtg cac 432  
Leu Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His  
130 135 140

ctc tcc tgc cag gag aaa cag aac acc gtg tgc acc tgc cat gca ggt 480  
Leu Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly  
145 150 155 160

ttc ttt cta aga gaa aac gag tgt gtc tcc tgt agt aac tgt aag aaa 528  
Phe Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys  
165 170 175

agc ctg gag tgc acg aag ttg tgc cta ccc cag att gag aat 570  
Ser Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile Glu Asn  
180 185 190

<210> 18

<211> 190

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: recombinant  
TNF-BP sequence

<400> 18

Met Gly Leu Ser Thr Val Pro Asp Leu Leu Leu Pro Leu Val Leu Leu  
1 5 10 15

Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Asp Ser Val  
20 25 30

Cys Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys  
35 40 45

Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro  
50 55 60

Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala  
65 70 75 80

Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys  
85 90 95

Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr  
100 105 110

Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn  
115 120 125

Leu Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His  
130 135 140

Leu Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly  
145 150 155 160

Phe Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys  
165 170 175

Ser Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile Glu Asn  
180 185 190

<210> 19  
<211> 516  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: recombinant  
TNF-BP sequence

<220>  
<221> CDS  
<222> (1)..(516)

<400> 19  
atg gat agt gtg tgt ccc caa gga aaa tat atc cac cct caa aat aat 48  
Met Asp Ser Val Cys Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn  
1 5 10 15

tcg att tgc tgt acc aag tgc cac aaa gga acc tac ttg tac aat gac 96  
Ser Ile Cys Cys Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp  
20 25 30

tgt cca ggc ccg ggg cag gat acg gac tgc agg gag tgt gag agc ggc 144  
Cys Pro Gly Pro Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly  
35 40 45

tcc ttc acc gct tca gaa aac cac ctc aga cac tgc ctc agc tgc tcc 192  
Ser Phe Thr Ala Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser  
50 55 60

aaa tgc cga aag gaa atg ggt cag gtg gag atc tct tct tgc aca gtg 240  
Lys Cys Arg Lys Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val  
65 70 75 80

gac cgg gac acc gtg tgt ggc tgc agg aag aac cag tac cgg cat tat 288  
Asp Arg Asp Thr Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr  
85 90 95

tgg agt gaa aac ctt ttc cag tgc ttc aat tgc agc ctc tgc ctc aat 336  
Trp Ser Glu Asn Leu Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn  
100 105 110

ggg acc gtg cac ctc tcc tgc cag gag aaa cag aac acc gtg tgc acc 384  
Gly Thr Val His Leu Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr  
115 120 125

tgc cat gca ggt ttc ttt cta aga gaa aac gag tgt gtc tcc tgt agt 432  
Cys His Ala Gly Phe Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser  
130 135 140

aac tgt aag aaa agc ctg gag tgc acg aag ttg tgc cta ccc cag att 480  
Asn Cys Lys Lys Ser Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile  
145 150 155 160

gag aat gtt aag ggc act gag gac tca ggc acc aca 516  
Glu Asn Val Lys Gly Thr Glu Asp Ser Gly Thr Thr  
165 170

<210> 20  
<211> 172  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: recombinant  
TNF-BP sequence

<400> 20  
Met Asp Ser Val Cys Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn  
1 5 10 15

Ser Ile Cys Cys Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp  
20 25 30

Cys Pro Gly Pro Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly  
35 40 45

Ser Phe Thr Ala Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser  
50 55 60

Lys Cys Arg Lys Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val  
65 70 75 80

Asp Arg Asp Thr Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr  
85 90 95

Trp Ser Glu Asn Leu Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn  
100 105 110

Gly Thr Val His Leu Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr  
115 120 125

Cys His Ala Gly Phe Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser  
130 135 140

Asn Cys Lys Lys Ser Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile  
145 150 155 160

Glu Asn Val Lys Gly Thr Glu Asp Ser Gly Thr Thr  
165 170

<210> 21  
<211> 1334  
<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: cDNA insert of  
lambdaTNF-BP15 and pTNF-BP15 vectors

<220>

<221> CDS

<222> (213)..(1325)

<400> 21

gaattctctg gactgaggct ccagttctgg cctttgggt tcaagatcac tgggaccagg 60

ccgtgatctc tatgcccag tctcaaccct caactgtcac cccaaggcac ttggacgac 120

ctggacagac cgagtcccgg gaagccccag cactggcgt gccacactgc cctgagccca 180

aatgggcgag tgagaggcca tagctgtctg gc atg ggc ctc tcc acc gtg cct 233  
Met Gly Leu Ser Thr Val Pro

1 5

gac ctg ctg cta ctg gtg ttc ctg gag ctg ttg gtg gga ata tac 281  
Asp Leu Leu Leu Pro Leu Val Phe Leu Glu Leu Val Gly Ile Tyr

10 15 20

ccc tca ggg gtt att gga ctg gtc cct cac cta ggg gac agg gag aag 329  
Pro Ser Gly Val Ile Gly Leu Val Pro His Leu Gly Asp Arg Glu Lys

25 30 35

aga gat agt gtg tgt ccc cta gga aaa tat atc cac cct caa aat aat 377  
Arg Asp Ser Val Cys Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn

40 45 50 55

tcg att tgc tgt acc aag tgc cac aaa gga acc tac ttg tac aat gac 425  
Ser Ile Cys Cys Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp

60 65 70

tgt cca ggc ccg ggg cag gat acg gac tgc agg gag tgt gag agc ggc 473  
Cys Pro Gly Pro Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly

75 80 85

tcc ttc acc gct tca gaa aac cac ctc aga cac tgc ctc agc tgc tcc 521  
Ser Phe Thr Ala Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser

90 95 100

aaa tgc cga aag gaa atc ggt cag gtg gag atc tct tct tgc aca gtg 569  
Lys Cys Arg Lys Glu Ile Gly Gln Val Glu Ile Ser Ser Cys Thr Val

105 110 115

gac cgg gac acc gtg tgt ggc tgc agg aag aac cag tac cgg cat tat 617  
Asp Arg Asp Thr Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr

120 125 130 135

tgg agt gaa aac ctt ttc cag tgc ttc aat tgc agc ctc tgc ctc aat 665  
Trp Ser Glu Asn Leu Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn

140 145 150

ggg acc gtc cac ctc tcc tgc cag gag aaa cag aac acc gtc tgc acc	713
Gly Thr Val His Leu Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr	
155 160 165	
tgc cat gca ggt ttc ttt cta aga gaa aac gag tgt gtc tcc tgt agt	761
Cys His Ala Gly Phe Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser	
170 175 180	
aac tgt aag aaa agc ctg gag tgc agg aag ttg tgc cta ccc cag att	809
Asn Cys Lys Lys Ser Leu Glu Cys Arg Lys Leu Cys Leu Pro Gln Ile	
185 190 195	
gag aat gtt aag ggc act gag gac tca ggc acc aca gtc ctg ttg ccc	857
Glu Asn Val Lys Gly Thr Glu Asp Ser Gly Thr Thr Val Leu Leu Pro	
200 205 210 215	
ctg gtc att ttc ttt ggt ctt tgc ctt tta tcc ctc ctc ttc att ggt	905
Leu Val Ile Phe Phe Gly Leu Cys Leu Leu Ser Leu Leu Phe Ile Gly	
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tta atg tat cgc tac caa cgg tgg aag tcc aag ctc tac tcc att gtt	953
Leu Met Tyr Arg Tyr Gln Arg Trp Lys Ser Lys Leu Tyr Ser Ile Val	
235 240 245	
tgt ggg aaa tcg aca cct gaa aaa gag ggg gag ctt gaa gga act act	1001
Cys Gly Lys Ser Thr Pro Glu Lys Glu Gly Glu Leu Glu Gly Thr Thr	
250 255 260	
act aag ccc ctg gcc cca aac cca agc ttc agt ccc act cca ggc ttc	1049
Thr Lys Pro Leu Ala Pro Asn Pro Ser Phe Ser Pro Thr Pro Gly Phe	
265 270 275	
acc ccc acc ctg ggc ttc agt ccc gtc ccc agt tcc acc ttc acc tcc	1097
Thr Pro Thr Leu Gly Phe Ser Pro Val Pro Ser Ser Thr Phe Thr Ser	
280 285 290 295	
agc tcc acc tat acc ccc ggt gac tgt ccc aac ttt gcg gct ccc cgc	1145
Ser Ser Thr Tyr Thr Pro Gly Asp Cys Pro Asn Phe Ala Ala Pro Arg	
300 305 310	
aga gag gtg gca cca ccc tat cag ggg gct gac ccc atc ctt gcg aca	1193
Arg Glu Val Ala Pro Pro Tyr Gln Gly Ala Asp Pro Ile Leu Ala Thr	
315 320 325	
gcc ctc gcc tcc gac ccc atc ccc aac ccc ctt cag aag tgg gag gac	1241
Ala Leu Ala Ser Asp Pro Ile Pro Asn Pro Leu Gln Lys Trp Glu Asp	
330 335 340	
agc gcc cac aag cca cag agc cta gac act gat gac ccc gcg acg ctg	1289
Ser Ala His Lys Pro Gln Ser Leu Asp Thr Asp Asp Pro Ala Thr Leu	
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His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys Pro Gln Gly Lys  
35 40 45  
  
Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys  
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Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp  
65 70 75 80  
  
Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu  
85 90 95  
  
Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Ile Gly Gln Val  
100 105 110  
  
Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg  
115 120 125  
  
Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe  
130 135 140  
  
Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu  
145 150 155 160  
  
Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu  
165 170 175  
  
Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser Leu Glu Cys Arg  
180 185 190  
  
Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser  
195 200 205  
  
Gly Thr Thr Val Leu Leu Pro Leu Val Ile Phe Phe Gly Leu Cys Leu  
210 215 220  
  
Leu Ser Leu Leu Phe Ile Gly Leu Met Tyr Arg Tyr Gln Arg Trp Lys  
225 230 235 240  
  
Ser Lys Leu Tyr Ser Ile Val Cys Gly Lys Ser Thr Pro Glu Lys Glu  
245 250 255

Gly Glu Leu Glu Gly Thr Thr Lys Pro Leu Ala Pro Asn Pro Ser  
260 265 270

Phe Ser Pro Thr Pro Gly Phe Thr Pro Thr Leu Gly Phe Ser Pro Val  
275 280 285

Pro Ser Ser Thr Phe Thr Ser Ser Ser Thr Tyr Thr Pro Gly Asp Cys  
290 295 300

Pro Asn Phe Ala Ala Pro Arg Arg Glu Val Ala Pro Pro Tyr Gln Gly  
305 310 315 320

Ala Asp Pro Ile Leu Ala Thr Ala Leu Ala Ser Asp Pro Ile Pro Asn  
325 330 335

Pro Leu Gln Lys Trp Glu Asp Ser Ala His Lys Pro Gln Ser Leu Asp  
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Leu Arg Trp  
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<220>  
<223> Description of Artificial Sequence: raTNF-R8

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 gggctcacgc tgccaaacacc cggggccaccc ggtccgatcg tcttacttca ttcaccagcg 180  
 ttgccaattg ctgcccgttc cccagccccca atgggggagt gagagaggcc actgccggcc 240  
 ggac atg ggt ctc ccc atc gtg cct ggc ctg ctg tca ctg gtg ctc 289  
     Met Gly Leu Pro Ile Val Pro Gly Leu Leu Leu Ser Leu Val Leu  
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 ctg gct ctg ctg atg ggg ata cac cca tca ggg gtc acc gga ctg gtt 337  
   Leu Ala Leu Leu Met Gly Ile His Pro Ser Gly Val Thr Gly Leu Val  
   20               25               30  
 cct tct ctt ggt gac cgg gag aag agg gat aat ttg tgt ccc cag gga 385  
   Pro Ser Leu Gly Asp Arg Glu Lys Arg Asp Asn Leu Cys Pro Gln Gly  
   35               40               45  
 aag tat gcc cat cca aag aat aat tcc atc tgc tgc acc aag tgc cac 433  
   Lys Tyr Ala His Pro Lys Asn Asn Ser Ile Cys Cys Thr Lys Cys His  
   50               55               60  
 aaa gga acc tac ttg gtg agt gac tgt cca agc cca ggg cag gaa aca 481  
   Lys Gly Thr Tyr Leu Val Ser Asp Cys Pro Ser Pro Gly Gln Glu Thr  
   65               70               75  
 gtc tgc gag ctc tct cat aaa ggc acc ttt aca gct tcg cag aac cac 529  
   Val Cys Glu Leu Ser His Lys Gly Thr Phe Thr Ala Ser Gln Asn His  
   80               85               90               95  
 gtc aga cag tgt ctc agt tgc aag aca tgt cgg aaa gaa atg ttc cag 577  
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   100              105              110  
 gtg gag att tct cct tgc aaa gct gac atg gac acc gtg tgt ggc tgc 625  
   Val Glu Ile Ser Pro Cys Lys Ala Asp Met Asp Thr Val Cys Gly Cys  
   115              120              125  
 aag aag aac caa ttc cag cgc tac ctg agt gag acg cat ttc cag tgt 673  
   Lys Lys Asn Gln Phe Gln Arg Tyr Leu Ser Glu Thr His Phe Gln Cys  
   130              135              140  
 gtg gac tgc agc ccc tgc ttc aat ggc acc gtg aca atc ccc tgt aag 721  
   Val Asp Cys Ser Pro Cys Phe Asn Gly Thr Val Thr Ile Pro Cys Lys  
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 gag aaa cag aac acc gtg tgt aac tgc cac gca gga ttc ttt cta agc 769  
   Glu Lys Gln Asn Thr Val Cys Asn Cys His Ala Gly Phe Phe Leu Ser  
   160              165              170              175  
 gga aat gag tgc acc cct tgc agc cac tgc aag aaa aat cag gaa tgt 817  
   Gly Asn Glu Cys Thr Pro Cys Ser His Cys Lys Lys Asn Gln Glu Cys  
   180              185              190  
 atg aag ctg tgc cta cct cca gtt gca aat gtc aca aac ccc cag gac 865  
   Met Lys Leu Cys Leu Pro Pro Val Ala Asn Val Thr Asn Pro Gln Asp  
   195              200              205

tca ggt act gcc gtg ctg ttg cct ctg gtt atc ttc cta ggt ctt tgc	913
Ser Gly Thr Ala Val Leu Leu Pro Leu Val Ile Phe Leu Gly Leu Cys	
210 215 220	
ctt tta ttc ttt atc tgc atc agt cta ctg tgc cga tat ccc cag tgg	961
Leu Leu Phe Phe Ile Cys Ile Ser Leu Leu Cys Arg Tyr Pro Gln Trp	
225 230 235	
agg ccc agg gtc tac tcc atc att tgt agg gat tca gct cct gtc aaa	1009
Arg Pro Arg Val Tyr Ser Ile Ile Cys Arg Asp Ser Ala Pro Val Lys	
240 245 250 255	
gag gtg gag ggt gaa gga att gtt act aag ccc cta act cca gcc tct	1057
Glu Val Glu Gly Glu Ile Val Thr Lys Pro Leu Thr Pro Ala Ser	
260 265 270	
atc cca gcc ttc agc ccc aac ccc ggc ttc aac ccc act ctg ggc ttc	1105
Ile Pro Ala Phe Ser Pro Asn Pro Gly Phe Asn Pro Thr Leu Gly Phe	
275 280 285	
agc acc acc cca cgc ttc agt cat cct gtc tcc agt acc ccc atc agc	1153
Ser Thr Thr Pro Arg Phe Ser His Pro Val Ser Ser Thr Pro Ile Ser	
290 295 300	
ccc gtc ttc ggt cct agt aac tgg cac aac ttc gtg cca cct gta aga	1201
Pro Val Phe Gly Pro Ser Asn Trp His Asn Phe Val Pro Pro Val Arg	
305 310 315	
gag gtg gtc cca acc cag ggt gct gac cct ctc tac gga tcc ctc	1249
Glu Val Val Pro Thr Gln Gly Ala Asp Pro Leu Leu Tyr Gly Ser Leu	
320 325 330 335	
aac cct gtg cca atc ccc gcc cct gtt cgg aaa tgg gaa gac gtc gtc	1297
Asn Pro Val Pro Ile Pro Ala Pro Val Arg Lys Trp Glu Asp Val Val	
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gcg gcc cag cca caa cgg ctt gac act gca gac cct gcg atg ctg tat	1345
Ala Ala Gln Pro Gln Arg Leu Asp Thr Ala Asp Pro Ala Met Leu Tyr	
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gct gtg gtg gat ggc gtg cct ccg aca cgc tgg aag gag ttc atg cgg	1393
Ala Val Val Asp Gly Val Pro Pro Thr Arg Trp Lys Glu Phe Met Arg	
370 375 380	
ctc ctg ggg ctg agc gag cac gag atc gag cgg ttg gag ctg cag aac	1441
Leu Leu Gly Leu Ser Glu His Glu Ile Glu Arg Leu Glu Leu Gln Asn	
385 390 395	
ggg cgt tgc ctc cgc gag gct cat tac agc atg ctg gaa gcc tgg cgg	1489
Gly Arg Cys Leu Arg Glu Ala His Tyr Ser Met Leu Glu Ala Trp Arg	
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<220>  
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Ser Leu Gly Asp Arg Glu Lys Arg Asp Asn Leu Cys Pro Gln Gly Lys  
35 40 45

Tyr Ala His Pro Lys Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys  
 50 55 60

Gly Thr Tyr Leu Val Ser Asp Cys Pro Ser Pro Gly Gln Glu Thr Val  
65 70 75 80

Cys Glu Leu Ser His Lys Gly Thr Phe Thr Ala Ser Gln Asn His Val  
85 90 95

Arg Gln Cys Leu Ser Cys Lys Thr Cys Arg Lys Glu Met Phe Gln Val

100 105 110

Glu Ile Ser Pro Cys Lys Ala Asp Met Asp Thr Val Cys Gly Cys Lys  
115 120 125

Lys Asn Gln Phe Gln Arg Tyr Leu Ser Glu Thr His Phe Gln Cys Val  
130 135 140

Asp Cys Ser Pro Cys Phe Asn Gly Thr Val Thr Ile Pro Cys Lys Glu  
145 150 155 160

Lys Gln Asn Thr Val Cys Asn Cys His Ala Gly Phe Phe Leu Ser Gly  
165 170 175

Asn Glu Cys Thr Pro Cys Ser His Cys Lys Lys Asn Gln Glu Cys Met  
180 185 190

Lys Leu Cys Leu Pro Pro Val Ala Asn Val Thr Asn Pro Gln Asp Ser  
195 200 205

Gly Thr Ala Val Leu Leu Pro Leu Val Ile Phe Leu Gly Leu Cys Leu  
210 215 220

Leu Phe Phe Ile Cys Ile Ser Leu Leu Cys Arg Tyr Pro Gln Trp Arg  
225 230 235 240

Pro Arg Val Tyr Ser Ile Ile Cys Arg Asp Ser Ala Pro Val Lys Glu  
245 250 255

Val Glu Gly Glu Gly Ile Val Thr Lys Pro Leu Thr Pro Ala Ser Ile  
260 265 270

Pro Ala Phe Ser Pro Asn Pro Gly Phe Asn Pro Thr Leu Gly Phe Ser  
275 280 285

Thr Thr Pro Arg Phe Ser His Pro Val Ser Ser Thr Pro Ile Ser Pro  
290 295 300

Val Phe Gly Pro Ser Asn Trp His Asn Phe Val Pro Pro Val Arg Glu  
305 310 315 320

Val Val Pro Thr Gln Gly Ala Asp Pro Leu Leu Tyr Gly Ser Leu Asn  
325 330 335

Pro Val Pro Ile Pro Ala Pro Val Arg Lys Trp Glu Asp Val Val Ala  
340 345 350

Ala Gln Pro Gln Arg Leu Asp Thr Ala Asp Pro Ala Met Leu Tyr Ala  
355 360 365

Val Val Asp Gly Val Pro Pro Thr Arg Trp Lys Glu Phe Met Arg Leu  
370 375 380

Leu Gly Leu Ser Glu His Glu Ile Glu Arg Leu Glu Leu Gln Asn Gly  
385 390 395 400

Arg Cys Leu Arg Glu Ala His Tyr Ser Met Leu Glu Ala Trp Arg Arg

405

410

415

Arg Thr Pro Arg His Glu Ala Thr Leu Asp Val Val Gly Arg Val Leu  
420 425 430

Cys Asp Met Asn Leu Arg Gly Cys Leu Glu Asn Ile Arg Glu Thr Leu  
435 440 445

Glu Ser Pro Ala His Ser Ser Thr Thr His Leu Pro Arg  
450 455 460

<210> 26

<211> 2141

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: human TNF-R in  
1TNF-R2

<220>

<221> CDS

<222> (213)..(1577)

<400> 26

gaattctctg gactgaggct ccagttctgg cctttgggt tcaagatcac tgggaccagg 60

ccgtgatctc tatgccccag tctcaaccct caactgtcac cccaaaggcac ttggacgac 120

ctggacagac cgagtccccg gaagccccag cactggcgct gccacactgc cctgagccca 180

katggggag tgagaggcca tagctgtctg gc atg ggc ctc tcc acc gtg cct 233  
Met Gly Leu Ser Thr Val Pro  
1 5

gac ctg ctg cca ctg gtg ctc ctg gag ctg ttg gtg gga ata tac 281  
Asp Leu Leu Pro Leu Val Leu Leu Glu Leu Leu Val Gly Ile Tyr  
10 15 20

ccc tca ggg gtt att gga ctg gtc cct cac cta ggg gac agg gag aag 329  
Pro Ser Gly Val Ile Gly Leu Val Pro His Leu Gly Asp Arg Glu Lys  
25 30 35

aga gat agt gtg tgt ccc caa gga aaa tat atc cac cct caa aat aat 377  
Arg Asp Ser Val Cys Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn  
40 45 50 55

tcg att tgc tgt acc aag tgc cac aaa gga acc tac ttg tac aat gac 425  
Ser Ile Cys Cys Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp  
60 65 70

tgt cca ggc ccg ggg cag gat acg gac tgc agg gag tgt gag agc ggc 473  
Cys Pro Gly Pro Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly  
75 80 85

tcc ttc acc gct tca gaa aac cac ctc aga cac tgc ctc agc tgc tcc 521

Ser	Phe	Thr	Ala	Ser	Glu	Asn	His	Leu	Arg	His	Cys	Leu	Ser	Cys	Ser		
90																100	
aaa	tgc	cga	aag	gaa	atg	ggt	cag	gtg	gag	atc	tct	tct	tgc	aca	gtg	569	
Lys	Cys	Arg	Lys	Glu	Met	Gly	Gln	Val	Glu	Ile	Ser	Ser	Cys	Thr	Val		
105																115	
gac	cg	gac	acc	gtg	tgt	ggc	tgc	agg	aag	aac	cag	tac	cg	cat	tat	617	
Asp	Arg	Asp	Thr	Val	Cys	Gly	Cys	Arg	Lys	Asn	Gln	Tyr	Arg	His	Tyr		
120																135	
tgg	agt	gaa	aac	ctt	ttc	cag	tgc	ttc	aat	tgc	agc	ctc	tgc	ctc	aat	665	
Trp	Ser	Glu	Asn	Leu	Phe	Gln	Cys	Phe	Asn	Cys	Ser	Leu	Cys	Leu	Asn		
140																150	
ggg	acc	gtg	cac	ctc	tcc	tgc	cag	gag	aaa	cag	aac	acc	gtg	tgc	acc	713	
Gly	Thr	Val	His	Leu	Ser	Cys	Gln	Glu	Lys	Gln	Asn	Thr	Val	Cys	Thr		
155																165	
tgc	cat	gca	gg	t	ttc	ttt	cta	aga	gaa	aac	gag	tgt	gtc	tcc	tgt	agt	761
Cys	His	Ala	Gly	Phe	Phe	Leu	Arg	Glu	Asn	Glu	Cys	Val	Ser	Cys	Ser		
170																180	
aac	tgt	aag	aaa	agc	ctg	gag	tgc	acg	aag	ttg	tgc	cta	ccc	cag	att	809	
Asn	Cys	Lys	Lys	Ser	Leu	Glu	Cys	Thr	Lys	Leu	Cys	Leu	Pro	Gln	Ile		
185																195	
gag	aat	gtt	aag	ggc	act	gag	gac	tca	ggc	acc	aca	gtg	ctg	ttg	ccc	857	
Glu	Asn	Val	Lys	Gly	Thr	Glu	Asp	Ser	Gly	Thr	Thr	Val	Leu	Leu	Pro		
200																215	
ctg	gtc	att	ttc	ttt	gg	t	tt	tgc	ctt	tta	tcc	ctc	ctc	ttc	att	gg	905
Leu	Val	Ile	Phe	Phe	Gly	Leu	Cys	Leu	Leu	Ser	Leu	Leu	Phe	Ile	Gly		
220																230	
tta	atg	tat	cgc	tac	caa	cg	tgg	aag	tcc	aag	ctc	tac	tcc	att	gtt	953	
Leu	Met	Tyr	Arg	Tyr	Gln	Arg	Trp	Lys	Ser	Lys	Leu	Tyr	Ser	Ile	Val		
235																245	
tgt	ggg	aaa	tcg	aca	cct	gaa	aaa	gag	ggg	gag	ctt	gaa	gga	act	act	1001	
Cys	Gly	Lys	Ser	Thr	Pro	Glu	Lys	Glu	Gly	Glu	Leu	Glu	Gly	Thr	Thr		
250																260	
act	aag	ccc	ctg	gcc	cca	aac	cca	agc	ttc	agt	ccc	act	cca	ggc	ttc	1049	
Thr	Lys	Pro	Leu	Ala	Pro	Asn	Pro	Ser	Phe	Ser	Pro	Thr	Pro	Gly	Phe		
265																275	
acc	ccc	acc	ctg	ggc	ttc	agt	ccc	gtg	ccc	agt	tcc	acc	ttc	acc	tcc	1097	
Thr	Pro	Thr	Leu	Gly	Phe	Ser	Pro	Val	Pro	Ser	Ser	Thr	Phe	Thr	Ser		
280																295	
agc	tcc	acc	tat	acc	ccc	gg	gac	tgt	ccc	aac	ttt	g	cg	g	ct	1145	
Ser	Ser	Thr	Tyr	Thr	Pro	Gly	Asp	Cys	Pro	Asn	Phe	Ala	Ala	Pro	Arg		
300																310	
aga	gag	gtg	gca	cca	ccc	tat	cag	ggg	gct	gac	ccc	atc	ctt	g	ca	1193	
Arg	Glu	Val	Ala	Pro	Pro	Tyr	Gln	Gly	Ala	Asp	Pro	Ile	Leu	Ala	Thr		

315

320

325

gcc ctc gcc tcc gac ccc atc ccc aac ccc ctt cag aag tgg gag gac 1241  
 Ala Leu Ala Ser Asp Pro Ile Pro Asn Pro Leu Gln Lys Trp Glu Asp  
 330 335 340

agc gcc cac aag cca cag agc cta gac act gat gac ccc gcg acg ctg 1289  
 Ser Ala His Lys Pro Gln Ser Leu Asp Thr Asp Asp Pro Ala Thr Leu  
 345 350 355

tac gcc gtg gtg gag aac gtg ccc ccg ttg cgc tgg aag gaa ttc gtg 1337  
 Tyr Ala Val Val Glu Asn Val Pro Pro Leu Arg Trp Lys Glu Phe Val  
 360 365 370 375

cg<sup>g</sup> cgc cta ggg ctg agc gac cac gag atc gat cgg ctg gag ctg cag 1385  
 Arg Arg Leu Gly Leu Ser Asp His Glu Ile Asp Arg Leu Glu Leu Gln  
 380 385 390

aac ggg cgc tgc ctg cgc gag gcg caa tac agc atg ctg gcg acc tgg 1433  
 Asn Gly Arg Cys Leu Arg Glu Ala Gln Tyr Ser Met Leu Ala Thr Trp  
 395 400 405

agg cgg cgc acg ccg cgg cgc gag gcc acg ctg gag ctg ctg gga cgc 1481  
 Arg Arg Arg Thr Pro Arg Glu Ala Thr Leu Glu Leu Gly Arg  
 410 415 420

gtg ctc cgc gac atg gac ctg ctg ggc tgc ctg gag gac atc gag gag 1529  
 Val Leu Arg Asp Met Asp Leu Leu Gly Cys Leu Glu Asp Ile Glu Glu  
 425 430 435

gc<sup>g</sup> ctt tgc ggc ccc gcc ccc ctc ccg ccc gcg ccc agt ctt ctc aga 1577  
 Ala Leu Cys Gly Pro Ala Ala Leu Pro Pro Ala Pro Ser Leu Leu Arg  
 440 445 450 455

tgaggctgcg cccctgcggg cagctctaag gaccgtcctg cgagatcgcc ttccaacccc 1637  
 actttttctt gaaaaaggagg ggtcctgcag gggcaagcag gagctagcag ccgcctactt 1697  
 ggtgctaacc cctcgatgta catagctttt ctcagctgcc tgcgccgcgc cgacagtcag 1757  
 cgctgtgcgc gcggagagag gtgcgcgtg ggctcaagag cctgagtgaa tggttgcga 1817  
 ggatgagggc cgctatgcct catgcccgtt ttgggtgtcc tcaccagcaa ggctgctcgg 1877  
 gggccctgg ttctgtccctg agccttttc acagtgcata agcagtttt tttgttttg 1937  
 ttttgtttt ttttgtttt aaatcaatca tgttacacta atagaaactt ggcactcctg 1997  
 tgccctctgc ctggacaagc acatagcaag ctgaactgtc ctaaggcagg ggcgagcacg 2057  
 gaacaatggg gccttcagct ggagctgtgg actttgtac atacactaaa attctgaagt 2117  
 taaaaaaaaaaa aaaaaaaagga attc 2141

&lt;210&gt; 27

&lt;211&gt; 455

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: human TNF-R in  
1TNF-R2

<400> 27

Met Gly Leu Ser Thr Val Pro Asp Leu Leu Leu Pro Leu Val Leu Leu  
1 5 10 15

Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Leu Val Pro  
20 25 30

His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys Pro Gln Gly Lys  
35 40 45

Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys  
50 55 60

Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp  
65 70 75 80

Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu  
85 90 95

Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val  
100 105 110

Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg  
115 120 125

Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe  
130 135 140

Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu  
145 150 155 160

Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu  
165 170 175

Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser Leu Glu Cys Thr  
180 185 190

Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser  
195 200 205

Gly Thr Thr Val Leu Leu Pro Leu Val Ile Phe Phe Gly Leu Cys Leu  
210 215 220

Leu Ser Leu Leu Phe Ile Gly Leu Met Tyr Arg Tyr Gln Arg Trp Lys  
225 230 235 240

Ser Lys Leu Tyr Ser Ile Val Cys Gly Lys Ser Thr Pro Glu Lys Glu  
245 250 255

Gly Glu Leu Glu Gly Thr Thr Lys Pro Leu Ala Pro Asn Pro Ser

260

265

270

Phe Ser Pro Thr Pro Gly Phe Thr Pro Thr Leu Gly Phe Ser Pro Val  
275 280 285

Pro Ser Ser Thr Phe Thr Ser Ser Ser Thr Tyr Thr Pro Gly Asp Cys  
290 295 300

Pro Asn Phe Ala Ala Pro Arg Arg Glu Val Ala Pro Pro Tyr Gln Gly  
305 310 315 320

Ala Asp Pro Ile Leu Ala Thr Ala Leu Ala Ser Asp Pro Ile Pro Asn  
325 330 335

Pro Leu Gln Lys Trp Glu Asp Ser Ala His Lys Pro Gln Ser Leu Asp  
340 345 350

Thr Asp Asp Pro Ala Thr Leu Tyr Ala Val Val Glu Asn Val Pro Pro  
355 360 365

Leu Arg Trp Lys Glu Phe Val Arg Arg Leu Gly Leu Ser Asp His Glu  
370 375 380

Ile Asp Arg Leu Glu Leu Gln Asn Gly Arg Cys Leu Arg Glu Ala Gln  
385 390 395 400

Tyr Ser Met Leu Ala Thr Trp Arg Arg Arg Thr Pro Arg Arg Glu Ala  
405 410 415

Thr Leu Glu Leu Leu Gly Arg Val Leu Arg Asp Met Asp Leu Leu Gly  
420 425 430

Cys Leu Glu Asp Ile Glu Glu Ala Leu Cys Gly Pro Ala Ala Leu Pro  
435 440 445

Pro Ala Pro Ser Leu Leu Arg  
450 455

<210> 28

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: N-terminal  
amino acid sequence of protein purified from urine  
(main sequence)

<220>

<221> UNSURE

<222> (4)

<223> identity of "Xaa" could not be determined

<400> 28

Asp Ser Val Xaa Pro Gln Gly Lys Tyr Ile His Pro Gln  
1 5 10

<210> 29  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: N-terminal  
amino acid sequence of protein purified from urine  
(subsidiary sequence)

<220>  
<221> UNSURE  
<222> (7)  
<223> identity of "Xaa" could not be determined

<400> 29  
Leu Val Pro His Leu Gly Xaa Arg Glu  
1 5

<210> 30  
<211> 151  
<212> DNA  
<213> Homo sapiens

<400> 30  
cagggaaaaa tattcacccct caaataattc gatttgctgt accaagtgcc acaaaggaaa 60  
ctacttgtac aatgactgtc caggccccggg gcaggatacg gactgcaggg agtgtgagag 120  
cggtcccttc acagcctcag aaaacaacaa g 151

<210> 31  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<400> 31  
Asp Ser Val Cys Pro Gln Gly Lys  
1 5

<210> 32  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<220>  
<221> UNSURE  
<222> (1)...(2)  
<223> identity of "Xaa" could not be determined

<400> 32  
Xaa Xaa Leu Ser Cys Ser Lys  
1 5

<210> 33  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<400> 33  
Asp Thr Val Cys Gly Cys Arg  
1 5

<210> 34  
<211> 11  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<400> 34  
Glu Asn Glu Cys Val Ser Cys Ser Asn Cys Lys  
1 5 10

<210> 35  
<211> 12  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<400> 35  
Glu Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys  
1 5 10

<210> 36  
<211> 13  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<220>  
<221> UNSURE  
<222> (6)  
<223> identity of "Xaa" could not be determined

<220>  
<221> UNSURE  
<222> (10)...(12)  
<223> identity of "Xaa" could not be determined

<400> 36  
Tyr Ile His Pro Gln Xaa Asn Ser Ile Xaa Xaa Xaa Lys  
1 5 10

<210> 37  
<211> 14  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<400> 37  
Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn Asn Lys  
1 5 10

<210> 38  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<400> 38  
Leu Val Pro His Leu Gly Asp Arg  
1 5

<210> 39  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<400> 39  
Lys Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp Arg  
1 5 10 15

<210> 40  
<211> 13  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<400> 40  
Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln  
1 5 10

<210> 41  
<211> 13  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<220>  
<221> UNSURE  
<222> (9)..(11)  
<223> identity of "Xaa" could not be determined

<400> 41  
Glu Met Gly Gln Val Glu Ile Ser Xaa Xaa Xaa Val Asp  
1 5 10

<210> 42  
<211> 20  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<400> 42  
Lys Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp Arg Asp  
1 5 10 15  
Thr Val Cys Gly  
20

<210> 43  
<211> 19

<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<220>  
<221> UNSURE  
<222> (6)  
<223> identity of "Xaa" could not be determined

<220>  
<221> UNSURE  
<222> (18)  
<223> identity of "Xaa" could not be determined

<400> 43  
Tyr Ile His Pro Gln Xaa Asn Ser Ile Cys Cys Thr Lys Cys His Lys  
1 5 10 15

Gly Xaa Tyr

<210> 44  
<211> 18  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<220>  
<221> UNSURE  
<222> (16)..(17)  
<223> identity of "Xaa" could not be determined

<400> 44  
Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Xaa  
1 5 10 15

Xaa Arg

<210> 45  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<400> 45

Leu Cys Leu Pro Gln Ile Glu Asn  
1 5

<210> 46  
<211> 14  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<220>  
<221> UNSURE  
<222> (7)  
<223> identity of "Xaa" could not be determined

<400> 46  
Gln Asn Thr Val Cys Thr Xaa His Ala Gly Phe Phe Leu Arg  
1 5 10

<210> 47  
<211> 14  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<400> 47  
Ser Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile Glu Asn  
1 5 10

<210> 48  
<211> 13  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<400> 48  
Asp Ser Val Cys Pro Gln Gly Lys Tyr Ile His Pro Gln  
1 5 10

<210> 49  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: TNF-BP tryptic cleavage peptide

<400> 49  
Gln Gly Lys Tyr Ile His Pro  
1 5

<210> 50  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: hybridization probe

<400> 50  
caaggtaaat atattcatcc 20

<210> 51  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: hybridization probe

<400> 51  
cagggtaagt acatccatcc 20

<210> 52  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: hybridization probe

<400> 52  
caaggtaaat atatacatcc 20

<210> 53  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: hybridization probe

<400> 53

caaggcaaat atattcatcc	20
<210> 54	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: hybridization	
probe	
<400> 54	
cagggcaagt acatccaccc	20
<210> 55	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: hybridization	
probe	
<400> 55	
caaggcaaat atatacatcc	20
<210> 56	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: hybridization	
probe	
<400> 56	
caaggaaaat atattcatcc	20
<210> 57	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: hybridization	
probe	
<400> 57	
cagggaaaagt acatccaccc	20
<210> 58	
<211> 20	

<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: hybridization probe

<400> 58  
caaggaaaat atatacatcc 20

<210> 59  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: hybridization probe

<400> 59  
caaggaaaat atattcatcc 20

<210> 60  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: hybridization probe

<400> 60  
cagggaaagt acatccaccc 20

<210> 61  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: hybridization probe

<400> 61  
caaggaaaat atatacatcc 20

<210> 62  
<211> 14  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: TNF-BP tryptic

cleavage peptide

<400> 62  
Glu Cys Gly Ser Gly Ser Phe Thr Ala Ser Glu Asn Asn Lys  
1 5 10

<210> 63  
<211> 14  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<400> 63  
Glu Cys Gly Ser Gly Ser Phe Thr Ala Ser Cys Asn Asn Lys  
1 5 10

<210> 64  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<400> 64  
Phe Thr Ala Ser Glu Asn Asn Lys  
1 5

<210> 65  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<400> 65  
Phe Thr Ala Ser Cys Asn Asn Lys  
1 5

<210> 66  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: hybridization  
probe

<400> 66  
aaatgacgga gactcttggtt gttccttaggg 30

<210> 67  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: hybridization probe

<400> 67  
aagtggcgta gtctttgtt gttccttaggg 30

<210> 68  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: hybridization probe

<400> 68  
aaatgtcgga gactcttggtt gttccttaggg 30

<210> 69  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: hybridization probe

<400> 69  
aaatgacggt cactcttggtt gttccttaggg 30

<210> 70  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: hybridization probe

<400> 70  
aagtggcggtt ctctttgtt gttccttaggg 30

<210> 71  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: hybridization probe

<400> 71  
aaatgtcggt cactcttgg t gttccttaggg 30

<210> 72  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: hybridization probe

<400> 72  
aaatgacgga gaacattgtt gttccttaggg 30

<210> 73  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: hybridization probe

<400> 73  
aagtggcgta gtactttgtt gttccttaggg 30

<210> 74  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: hybridization probe

<400> 74  
aaatgtcgga gaacattgtt gttccttaggg 30

<210> 75  
<211> 30  
<212> DNA  
<213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: hybridization  
 probe

<400> 75  
 aaatgacggt caacattgtt gttcctaggg 30

<210> 76  
 <211> 30  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: hybridization  
 probe

<400> 76  
 aagtggcggt ctactttgtt gttcctaggg 30

<210> 77  
 <211> 30  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: hybridization  
 probe

<400> 77  
 aaatgtcggt caacattgtt gttcctaggg 30

<210> 78  
 <211> 158  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> (1)..(153)

<400> 78  
 cag ggg aaa tat att cac cct caa aat aat tcg att tcg tgt acc aag 48  
 Gln Gly Lys Tyr Ile His Pro Gln Asn Asn Ser Ile Ser Cys Thr Lys  
 1 5 10 15

tcg cac aaa gga acc tac ttg tac aat gac tgt cca ggc ccg ggg cag 96  
 Ser His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gln  
 20 25 30

gat acg gac tgc agg gag tgt gag agc ggc tcc ttc aca gcc tca gaa 144  
 Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu  
 35 40 45

aac aac aag gatcc 158

Asn Asn Lys  
50

<210> 79  
<211> 51  
<212> PRT  
<213> Homo sapiens

<400> 79  
Gln Gly Lys Tyr Ile His Pro Gln Asn Asn Ser Ile Ser Cys Thr Lys  
1 5 10 15

Ser His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln  
20 25 30

Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu  
35 40 45

Asn Asn Lys  
50

<210> 80  
<211> 26  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: PCR primer  
EBI-1786

<400> 80  
ggaattcagc ctgaatggcg aatggg 26

<210> 81  
<211> 25  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: PCR primer  
EBI-1729

<400> 81  
cctcgagcgt tgctggcgtt tttcc 25

<210> 82  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: PCR primer  
EBI-1733

<400> 82  
ggtcgacatt gattattgac tag 23

<210> 83  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: PCR primer  
EBI-1734

<400> 83  
ggaattccct aggaatacag cg 23

<210> 84  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: mutagenesis  
primer EBI-1751

<400> 84  
gtacttgaac tcgttcctg 19

<210> 85  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: mutagenesis  
primer EBI-1857

<400> 85  
ggcaaggggca gcagccgg 18

<210> 86  
<211> 53  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:  
oligonucleotide EBI-1823

<400> 86  
agcttctgca ggtcgacatc gatggatcgg tacctcgagc ggccgcgaat tct 53

<210> 87

<211> 54

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:

oligonucleotide EBI-1829

<400> 87

ctagagaatt cgcgccgct cgaggtaccg gatccatcga tgtcgacctg caga 54

<210> 88

<211> 63

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:

oligonucleotide EBI-1820

<400> 88

agctctagag attcgccggcc gctcgaggta ccggatccat cgatgtcgac ctgcagaagc 60

ttg

63

<210> 89

<211> 64

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:

oligonucleotide EBI-1821

<400> 89

ctagcaagct tctgcaggta gacatcgatg gatccggta ctcgagcggc cgcgaattct 60

ctag

64

<210> 90

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR primer

EBI-1986

<400> 90

caggatccga gtctcaaccc tcaac 25

<210> 91

<211> 43  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: PCR primer  
EBI-1929

<400> 91  
ggaaattcct tatcaattct caatctgggg taggcacaac ttc 43

<210> 92  
<211> 81  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: PCR primer  
EBI-2452

<400> 92  
cacagtcgac ttacatttgc ttctgacaca actgtgttca ctagcaacct caaacagaca 60  
ccatgggcct ctccaccgtg c 81

<210> 93  
<211> 17  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: PCR primer  
EBI-1922

<400> 93  
gaggctgcaa ttgaagc 17

<210> 94  
<211> 17  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: PCR primer  
EBI-2316

<400> 94  
attcgtgcgg cgccctag 17

<210> 95  
<211> 17  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: PCR primer  
EBI-2467

<400> 95  
gtcggttagca ccaagga

17

<210> 96  
<211> 17  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: M13-40  
universal primer

<400> 96  
gttttcccaag tcacgac

17

*B4*  
<210> 97  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: PCR primer  
EBI-2112

<400> 97  
gtccaattat gtcacaccc

18